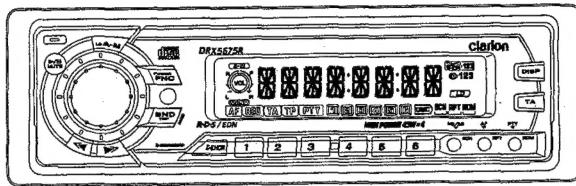


# Service Manual



**RDS-EON FM/MW/LW Radio CD Combination With CD Changer Control**

Model **DRX5675R**  
(PE-2315E)

## ■ SPECIFICATIONS

### Radio section

Tuning system: PLL synthesizer tuner  
Receiving frequencies: FM 87.5MHz to 108MHz  
(0.05MHz steps)  
MW 531kHz to 1602kHz  
(9kHz steps)  
LW 153kHz to 279kHz  
(3kHz steps)

### CD Player section

System: Compact disc digital audio system  
Frequency response: 5Hz to 20kHz( $\pm 1\text{dB}$ )  
Signal to noise ratio: 100dB(1kHz) IHF-A  
Dynamic range: 95dB(1kHz)  
Distortion: 0.01%

### General

Max. power output: 4 × 45W(EIAJ)  
Power supply voltage: 14V DC(10.8 to 15.6V allowable), negative ground  
Power consumption: Less than 15A  
Speaker impedance: 4 Ω(4 Ω to 8 Ω allowable)  
Auto antenna rated current:  
Weight: Main unit 1.7kg  
Dimensions(mm): Main unit  
178(W) × 50(H) × 155(D)

※Specifications and design are subject to change without notice for further improvement.

## ■ NOTE

※We cannot supply PWB with component parts in principle. When a circuit on PWB has failure, please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.

## ■ COMPONENTS

### PE-2315E-A

Main unit	_____	1
Mounting bracket	300-7742-00	1
DCP case	335-5734-30	1
ESCU TCHEON(OUT-ES)	370-5879-00	1
Parts bag	_____	
Removal key	331-2497-00	2
Cord clamp	335-0837-07	1
Rubber cap	345-3653-20	1
Screw	716-0726-01	1
A-lead(for cellular phone)	850-6681-50	1

## ■ FEATURES

- 1.RDS-Pro Receiver with Controller for MD or CD Changer (6/12 disc)
- 2.CD-Deck with 1-Bit D/A Converter and 8-Times Oversampling
- 3.Fully Detachable Flip Down Control Panel With Large Multi-Colour LC-Display
- 6.High Power 4×45W Max./4-Channel RCA Line Level Output

## ■ To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

### 1. Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.

The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability(PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

### 2. Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulationtubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.

If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

### 3. Check for safety after repair.

Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots.

If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

### 4. Caution in removal and making wiring connection to the parts for the automobile.

Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur.

If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

### 5. Cautions regarding chips.

Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

### 6. Cautions in handling flexible PWB

Before working with a soldering iron, make sure that the iron tip temperature is around 270°C. Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.

### 7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

### 8. Cautions in checking that the optical pickup lights up.

The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.

### 9. Cautions in handing the optical pickup

The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body.

Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.

#### 9-1. Laser diode

The laser diode terminals are shorted for transportation in order to prevent electrostatic damage.

After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

#### 9-2. Actuator

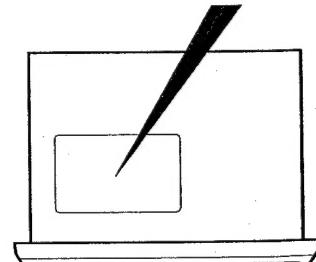
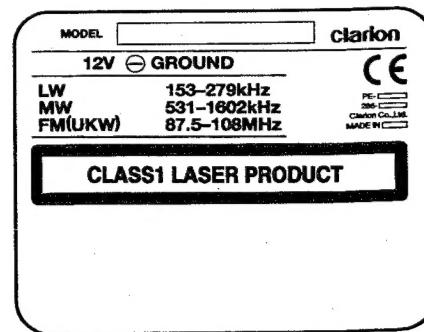
The actuator has a powerful magnetic circuit. If a magnetic material is put close to it, its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

#### 9-3. Cleaning the lens

Dust on the optical lens affects performance. To clean the lens, apply a small amount of isopropylalcohol to lens paper and wipe the lens gently.

## ■ CAUTIONS

This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUST". To use this model properly, read this Owner's Manual carefully and keep this manual for your future reference. In case of any trouble with this player, please contact your nearest "AUTHORIZED service station". To prevent direct exposure to the laser beam, do not try to open the enclosure.



Bottom view of Main Unit

## ■ NOTES OF ISO CONNECTOR

1. For VW and Audi vehicles, change the position of fuse installation as shown on the diagram.(Figure 1)

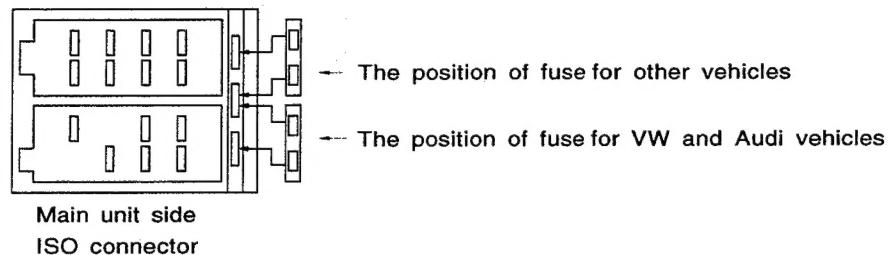


Figure 1

2. The lead include with the unit must be connected to the specified position of the vehicle's ISO connector in order to use the "triggered audio mute for cellular telephones" function.(Figure 2)

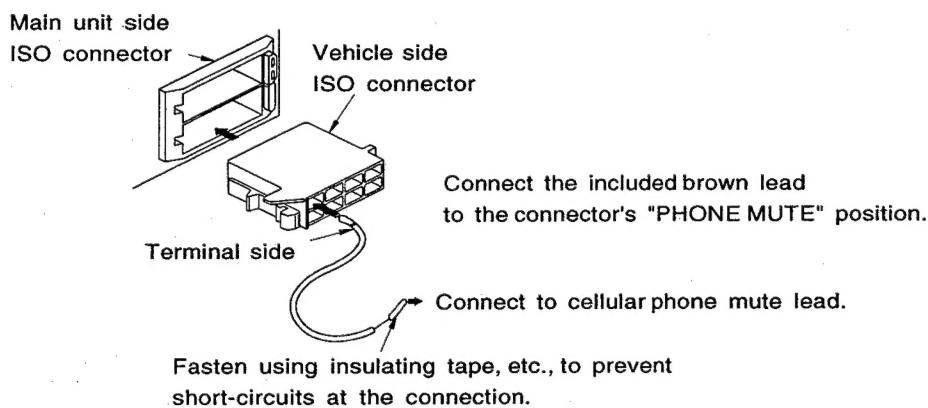
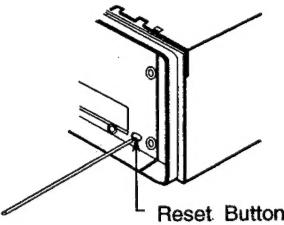


Figure 2

## ■ TROUBLESHOOTING

	Problem	Cause	Measure
General	Power does not turn on. (No sound is produced.)	Fuse is blown. Incorrect wiring.	Replace with a fuse of the same amperage as the old fuse. Consult your store of purchase.
	No sound output when operating the unit with amplifiers or power antenna attached.	Power antenna lead is shorted to ground or excessive current is required for remote-on the amplifiers or power antenna.	1.Turn the unit off. 2.Remove all wires attached to the power antenna lead. Check each wire for a possible short to ground using an ohm meter. 3.Turn the unit back on. 4.Reconnect each amplifier remote wire to the power antenna lead one by one. If the amplifiers turn off before all wires are attached, use an external relay to provide remote-on voltage (excessive current required).
	Nothing happens when buttons are pressed.  Display is not accurate.	The microprocessor has malfunctioned due to noise, etc.	Turn off the power, then press the OPEN button and remove the DCP. Press the reset button for about 2 seconds with a thin rod.
		DCP or main unit connectors are dirty.	Wipe the dirt off with a soft cloth moistened with cleaning alcohol.
	Compact disc cannot be loaded.	Another compact disc is already loaded.	Eject the compact disc before loading the new one.
CD	Sound skips or is noisy.	Compact disc is dirty.	Clean the compact disc with a soft cloth.
		Compact disc is heavily scratched or warped.	Replace with a compact disc with no scratches.
	Sound is bad directly after power is turned on.	Water droplets may form on the internal lens when the car is parked in a humid place.	Let dry for about 1 hour with the power on.



## ■ ERROR DISPLAYS

If an error occurs, one of the following displays is displayed.

Take the measures described below to eliminate the problem.

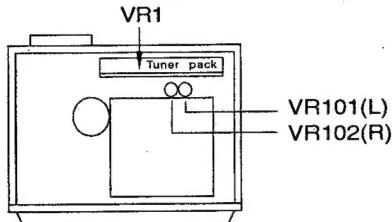
	Error Display	Cause	Measure
CD	ERROR 2	A CD is caught inside the CD deck and is not ejected.	This is a failure of CD deck's mechanism and consult your store of purchase.
	ERROR 3	A CD cannot be played due to scratches, etc.	Replace with a non-scratched, non-warped disc.
	ERROR 6	A CD is loaded upside-down inside the CD deck and does not play.	Eject the disc then reload it properly.
CD changer	ERROR 2	A CD inside the CD changer is not loaded.	This is a failure of CD changer's mechanism and consult your store of purchase.
	ERROR 3	A CD inside the CD changer cannot be played due to scratches, etc.	Replace with a non-scratched, non-warped disc.
	ERROR 6	A CD inside the CD changer cannot be played because it is loaded upside-down.	Eject the disc then reload it properly.

If an error display other than the ones described above appears, press the reset button. If the problem persists, turn off the power and consult your store of purchase.

## ■ ADJUSTMENT

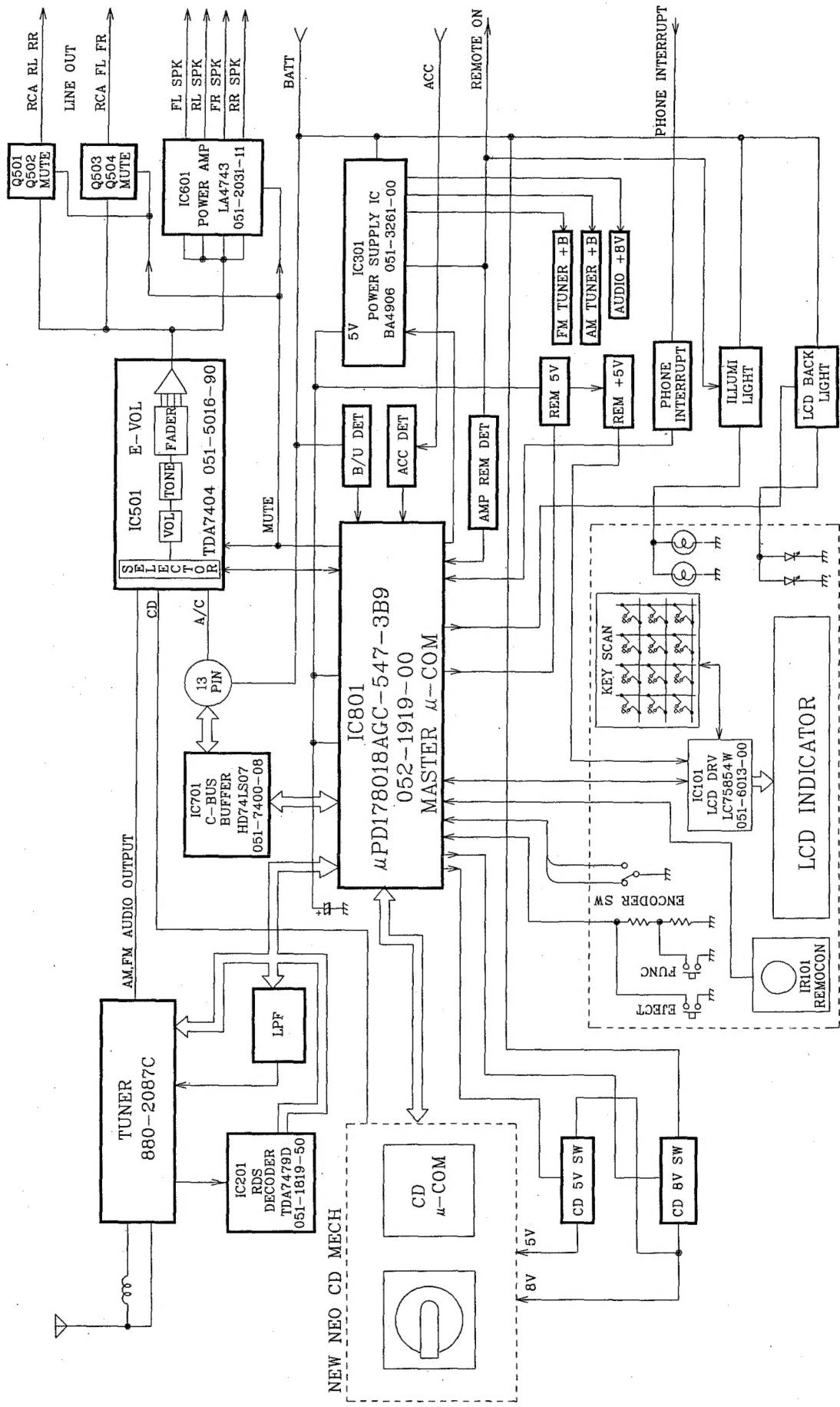
Item	Procedure	Measuring instrument
S-meter	1. Input the 98.1MHz/30dB $\mu$ (400Hz-MOD 30%) signal. 2. Turn on the power switch. And press the AF button and CH6 button at the same time.(TEST MODE) 3. Adjust the reading of LCD indicator to [30---00] (3.0V $\pm$ 0.2V) by VR1.	SG

Adjustment point



Top side of main unit

## BLOCK DIAGRAM



## ■ EXPLANATION OF IC:

■ μ PD178018AGC-547-3B9 052-1919-00 MASTER MICRO COMPUTER

1. Outward Form : 80 pins QFP

2. Terminal Description

pin 1 : KEY\_A/D : I : FUNC/EJECT/DCP detection terminal for A/D converter  
 pin 2 : RDS S\_METER : I : RDS S\_METER detection terminal for A/D converter  
 pin 3 : RDS\_NOISE : I : RDS NOISE detection terminal for A/D converter  
 pin 4 : VOL\_CW : I : Use for rolling volume  
 pin 5 : VOL\_CCW : I : Use for rolling volume  
 pin 6 : NOISE\_DISCHG : O : Noise is off  
 pin 7 : LCD\_SI : I : Serial data communication line to LCD Control IC  
 pin 8 : LCD\_SO : O : Serial data communication line to LCD Control IC  
 pin 9 : LCD\_SCK : O : Serial data communication line to LCD Control IC  
 pin 10 : LCD\_CE : O : Serial data communication line to LCD Control IC  
 pin 11 : C-BUS\_SRQ : I : "C-BUS" Serial data communication line  
 pin 12 : C-BUS\_SI : I : "C-BUS" Serial data communication line  
 pin 13 : C-BUS\_SO : O : "C-BUS" Serial data communication line  
 pin 14 : C-BUS\_SCK : O : "C-BUS" Serial data communication line  
 pin 15 : B/L + B : O : NC  
 pin 16 : SYS\_MUTE : O : Output mute. While it is "LOW", mute is "ON"  
 pin 17 : REM + 5 : O : REM 5V power supply control terminal  
 pin 18 : STAND BY : O : Power supply IC control terminal  
 pin 19 : E\_VOL\_CLK : O : E\_VOL use  
 pin 20 : E\_VOL\_DATA : O : E\_VOL use  
 pin 21 : GND : - : GND  
 pin 22 : VDD : - : VDD  
 pin 23 : MODE1 FM/AM : O : While "HI"=FM and "LO"=AM, power supply is "ON"  
 pin 24 : MODE2 ANT : O : While "HI"=ANT, power supply is "ON"  
 pin 25 : MUTE SPEED : O : During RDS follow-up motion, mute speed at "LO"; usually it is at "HI"  
 pin 26 : IF\_REQ : O : During seeking, it is at "HI"; while detecting RDS SD, it is at "LO"  
 pin 27 : ST : O : Usually input "ST" lights at "LO"; always at "HI" during seeking  
 pin 28 : AM IF\_CNT : I : AM IF counter  
 pin 29 : FM IF\_CNT : I : FM IF counter  
 pin 30 : VDD : - : VDD  
 pin 31 : FM OSC : I : FM VCO input terminal  
 pin 32 : AM OSC : I : AM VCO input terminal  
 pin 33 : GND : - : GND  
 pin 34 : FM EO : O : FM PLL VT  
 pin 35 : AM EO : O : AM PLL VT  
 pin 36 : GND : - : GND  
 pin 37 : NC : I : GND  
 pin 38 : NC : I : GND  
 pin 39 : SD/ST\_IND : I : While AM/FM SD IN/FM ST is "0", "ST" lights  
 pin 40 : RDS\_MUTE : O : During RDS follow-up motion, mute is at "HI"; usually it is at "LO"  
 pin 41 : AM\_DX/LO : O : AM DX/LO output terminal, LOCAL is at "HI"  
 pin 42 : AMPREM\_DET : I : While protecting circuit motion, it is at "HI"  
 pin 43 : SLAVE\_ON : I : NC  
 pin 44 : MASTER\_ON : O : NC  
 pin 45 : NC : O : NC  
 pin 46 : FM\_DX/LO : O : FM DX/LO output terminal, LOCAL is at "HI"

pin 47 : CD\_8V REM. : O : CD power supply control terminal + 8V  
 pin 48 : CD\_5V REM. : O : CD power supply control terminal + 5V  
 pin 49 : PHONE AUDIO : I : Connected to GND

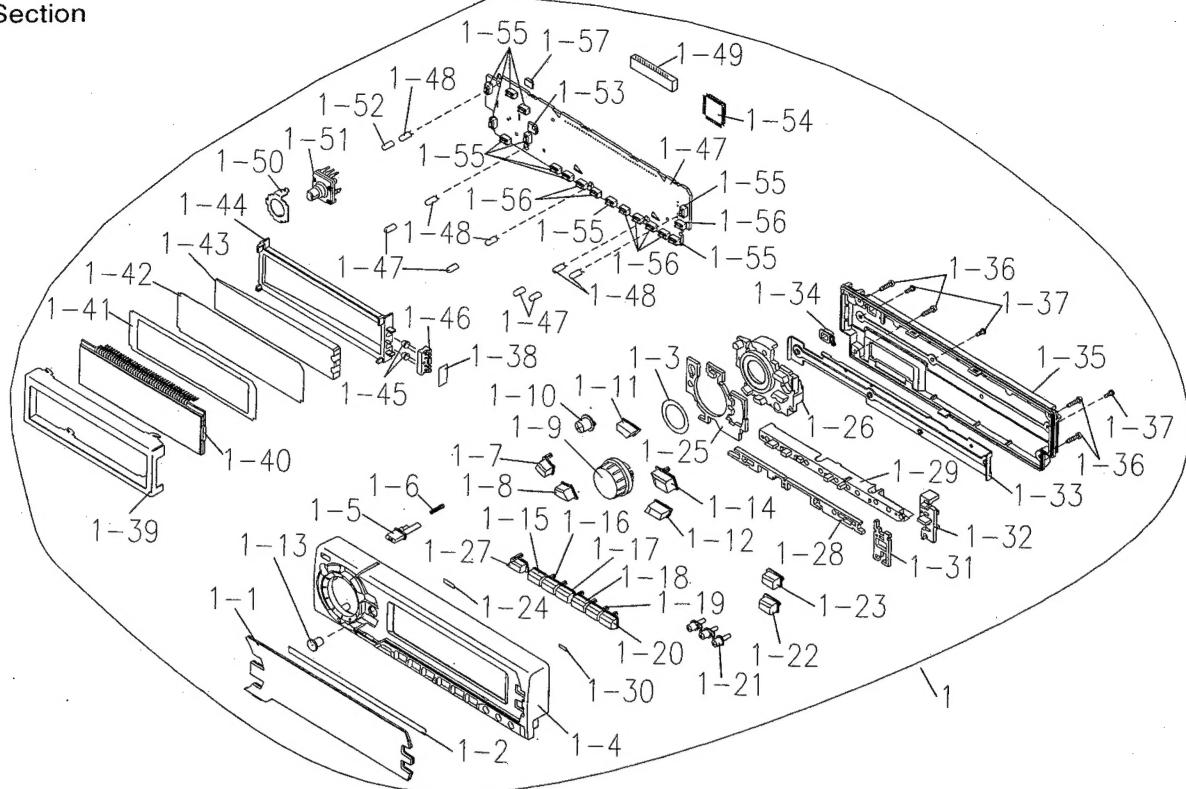
pin 50 : NC : I : NC  
 pin 51 : CW : O : Mechanical photo snesor input terminal.  
 Terminal to detect the disc position in loading status, chucking status and other machine s-tatus.  
 With disc, "H" is input. Without disc, "L" is input.  
 pin 52 : CCW : O : Mechanical photo snesor input terminal.  
 Terminal to detect the disc position in loading status, chucking status and other machine s-tatus.  
 With disc, "H" is input. Without disc, "L" is input.,  
 pin 53 : TR\_C : I : Mechanical photo snesor input terminal.  
 Terminal to detect the disc position in loading status, chucking status and other machine s-tatus.  
 With disc, "H" is input. Without disc, "L" is input.  
 pin 54 : TR\_B : I : Mechanical photo snesor input terminal.  
 Terminal to detect the disc position in loading status, chucking status and other machine s-tatus.  
 With disc, "H" is input. Without disc, "L" is input.  
 pin 55 : TR\_A : I : Mechanical photo snesor input terminal.  
 Terminal to detect the disc position in loading status, chucking status and other machine s-tatus.  
 With disc, "H" is input. Without disc, "L" is input.  
 pin 56 : CHU\_SW : I : Mechanical photo snesor input terminal.  
 Terminal to detect the disc position in loading status, chucking status and other machine s-tatus.  
 With disc, "H" is input. Without disc, "L" is input.  
 pin 57 : NC : I : NC  
 pin 58 : CD\_RESET : O : CD MECH connects to RESET  
 pin 59 : CCE : O : CD MECH chip enable  
 pin 60 : BUCK : O : CD MECH data bus clock  
 pin 61 : BUS\_3 : I/O : CD MECH data bus  
 pin 62 : BUS\_2 : I/O : CD MECH data bus  
 pin 63 : BUS\_1 : I/O : CD MECH data bus  
 pin 64 : BUS\_0 : I/O : CD MECH data bus  
 pin 65 : L/M : O : LW="HI", MW="LO"  
 pin 66 : RDS\_DATA : I : RDS data input terminal  
 pin 67 : RDS\_CLK : I : RDS clock input terminal  
 pin 68 : B/U\_DET : I : B/U detecting terminal  
 pin 69 : ACC\_IN : I : ACC detecting terminal  
 pin 70 : REMOCON : I : Remote control  
 pin 71 : KEY\_INT : I : To 1 pin  
 pin 72 : SBSY : I : Connected to CD MECH  
 pin 73 : PHONE\_INT : I : Phone interrupted  
 pin 74 : CPU\_REG : - : 0.047 μ F to GND  
 pin 75 : GND : - : GND  
 pin 76 : XOUT : - : X-TAL 4.5MHz  
 pin 77 : XIN : - : X-TAL 4.5MHz  
 pin 78 : OSC\_REG : - : 0.047 μ F to GND  
 pin 79 : VDD : - : VDD  
 pin 80 : RESET : I : System reset with 22K to 68 pin

### CD MECH : LOADING MOTOR CONTROL

PIN No	NAME	LOADING	EJECT	BREAK	STOP
51	MCW	H	L	H	L
52	MCCW	L	H	H	L

#### **■ EXPLODED VIEW · PARTS LIST:**

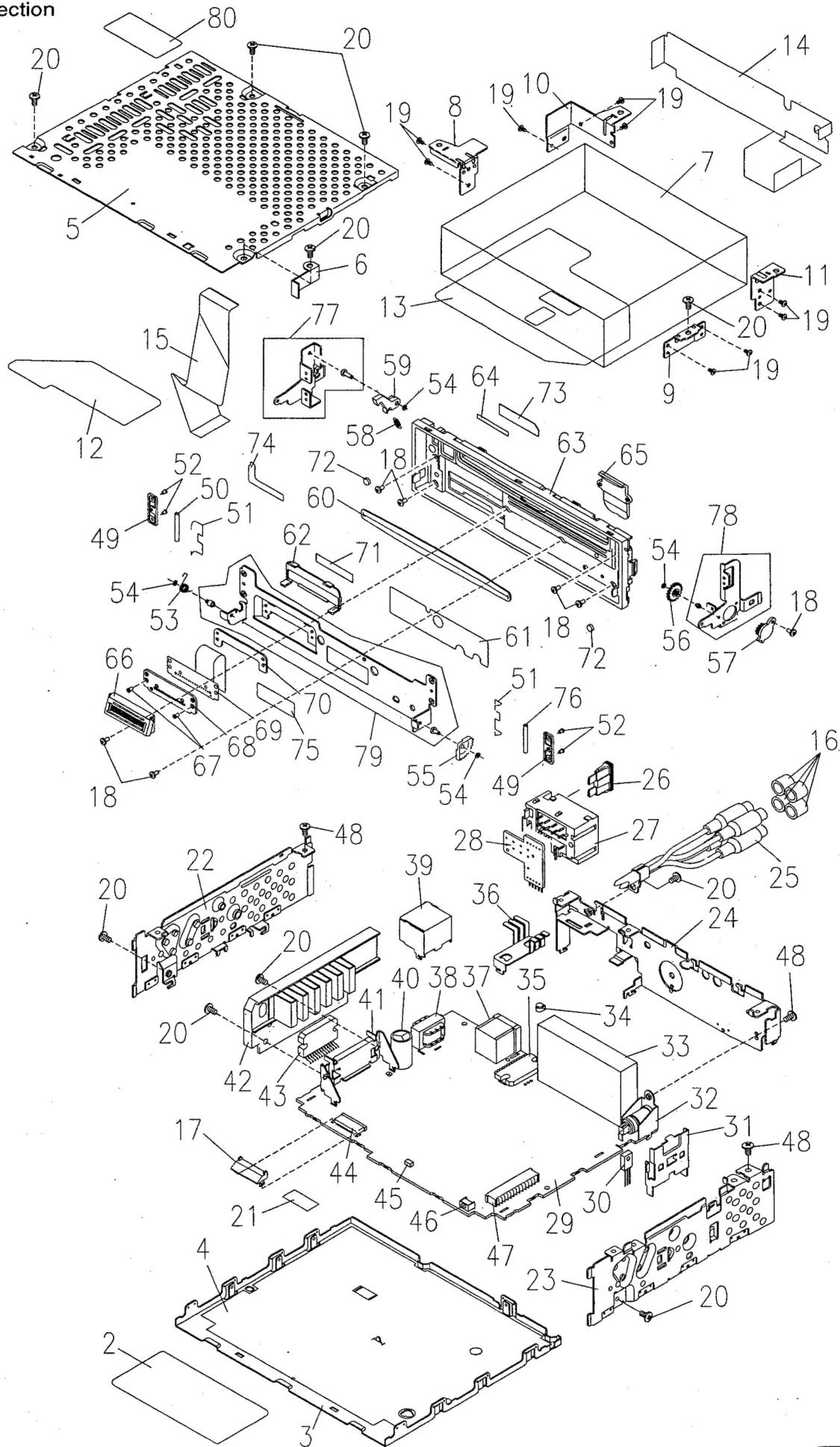
DCP Section



NO.	PARTS NO.	DESCRIPTION	QTY
1	DCP-180-700	DCP ASSY	1
1-1	373-0922-00	DIAL-CVR	1
1-2	347-6205-00	DOUBLE FACE	1
1-3	347-6206-00	SHADE	1
1-4	370-5855-00	ESCUOTCHEON	1
1-5	382-5664-00	BUTTON	1
1-6	750-3404-00	SPRING	1
1-7	382-5650-00	BUTTON	1
1-8	382-5649-00	BUTTON	1
1-9	380-5467-01	KNOB	1
1-10	382-5651-00	BUTTON	1
1-11	382-5652-00	BUTTON	1
1-12	382-5648-00	BUTTON	1
1-13	335-5828-00	IR-FILTER	1
1-14	382-5647-00	BUTTON	1
1-15	382-5654-00	BUTTON	1
1-16	382-5655-00	BUTTON	1
1-17	382-5656-00	BUTTON	1
1-18	382-5657-00	BUTTON	1
1-19	382-5658-00	BUTTON	1
1-20	382-5659-00	BUTTON	1
1-21	382-5663-00	BUTTON	1
1-22	382-5660-01	BUTTON	1
1-23	382-5661-00	BUTTON	1
1-24	347-6193-00	SHADE	1
1-25	345-8406-00	SPONGE(L)	1
1-26	335-6206-00	ILLUMI PART(L)	1
1-27	382-5653-00	BUTTON	1
1-28	345-8405-00	SPONGE	1
1-29	335-6205-00	ILLUMI PART(M)	1

NO.	PARTS NO.	DESCRIPTION	QTY
1-30	347-6192-00	SHADE	1
1-31	345-8404-00	SPONGE(R)	1
1-32	335-6204-20	ILLUMI PART(R)	1
1-33	331-2524-00	REAR-CVR-PLATE	1
1-34	382-5141-00	BUTTON	1
1-35	335-5837-01	REAR-CVR	1
1-36	716-0872-12	PAD SCREW	4
1-37	738-2035-17	PRECISION SCREW	3
1-38	347-6191-00	SHADE	1
1-39	331-2807-00	LCD CVR	1
1-40	379-1177-41	INDICATOR	1
1-41	347-6172-00	FILM	1
1-42	347-6173-00	SHADE	1
1-43	335-6211-00	LCD ILLUMI	1
1-44	335-6207-00	LCD HOLDER	1
1-45	001-7046-00	DIODE	2
1-46	335-6215-00	LED HOLDER	1
1-47	039-1624-00	SWITCH PWB (WITHOUT COMPONENT)	1
1-48	017-0444-00	PILOTLAMP	5
1-49	076-0535-01	PLUG	1
1-50	331-2814-00	JOG-SW-HOLDER	1
1-51	016-9900-66	VR W/SHAFT	1
1-52	345-4441-37	LAMP CAP	5
1-53	060-4008-00	IR-RECEIVE	1
1-54	051-6013-00	IC	1
1-55	013-6305-50	TACT SWITCH	11
1-56	013-6001-50	SWITCH	7
1-57	013-6511-50	ILLUMI SWITCH	1

Main Section



NO.	PARTS NO.	DESCRIPTION	QTY
2	286-9336-00	SETPLATE	1
3	304-0460-00	LOWER-CVR	1
4	347-5918-00	INSULATOR	1
5	303-0472-00	UPPER-CVR	1
6	331-2744-00	STOPPER	1
7	929-0092-80	CD-MECH-MO	1
8	331-2491-00	CD-SUB-BRKT	1
9	331-2492-00	CD-SUB-BRKT	1
10	331-2493-00	CD-SUB-BRKT	1
11	331-2494-00	CD-SUB-BRKT	1
12	347-5416-00	INSULATOR	1
13	347-5916-02	INSULATOR	1
14	347-6201-00	INSULATOR	1
15	816-2391-00	FLATCABLE	1
16	345-3799-20	RUBBER CAP	4
17	335-6019-00	CN-CVR	1
18	780-2004-01	SCREW	7
19	716-0717-10	STEEL SCREW	9
20	731-3006-80	TAPTTIGHT	10
21	347-6215-00	SPACER-FILM	1
22	305-0274-00	SIDE-CVR(L)	1
23	305-0275-00	SIDE-CVR(R)	1
24	307-0627-10	REAR-CVR	1
25	855-5428-50	RCA PIN CORD	1
26	060-0057-57	AUTO-FUSE(15A)	1
27	074-1115-00	OUTLET SOCKET	1
28	039-1400-30	ISO-PWB (WITHOUT COMPONENT)	1
29	039-1639-00	MAIN PWB (WITHOUT COMPONENT)	1
30	103-2012-00	TRANSISTOR	1
31	313-1651-20	HEAT SINK	1
32	092-9000-41	ANT RECEPT	1
33	880-2087C	TUNER	1
34	012-4738-13	VARIABLE-R	1
35	051-3261-00	IC	1
36	313-1772-00	HEAT SINK	1
37	074-1126-10	OUTLET SOCKET	1
38	009-9006-50	CHOKE	1
39	331-2820-00	SHIELD CASS	1
40	042-0447-00	SLUMI ELECTROLYTE-C	1
41	331-2255-20	IC-HOLDER	1

NO.	PARTS NO.	DESCRIPTION	QTY
42	313-1744-20	HEAT SINK	1
43	051-2031-11	IC	1
44	074-1198-68	OUTLET SOCKET	1
45	001-7011-96	DIODE	1
46	013-6100-00	SWITCH	1
47	074-0986-26	OUTLET SOCKET	1
48	714-3006-81	MACHINE SCREW	3
49	335-5821-01	SPING HOLDER	2
50	341-1704-20	ROLLER(LEFT)	1
51	750-3327-01	SPRING	2
52	738-1722-17	PRECISION SCREW	4
53	750-3342-00	SPRING	1
54	746-0761-00	WASHER	4
55	613-0684-00	FAN GEAR	1
56	613-0683-00	GEAR	1
57	613-0687-00	GEAR DAMPER	1
58	750-3341-00	SPRING	1
59	335-5820-00	HOOK	1
60	346-0114-01	LEATHER SHEET	1
61	290-7676-00	LABEL	1
62	335-5822-00	CN-CVR	1
63	370-5766-02	INNER-ES	1
64	347-5923-00	DOUBLE FACE	1
65	335-5817-00	ILLUMI PLATE	1
66	074-1145-02	OUTLET SOCKET	1
67	781-1735-00	SCREW	2
68	039-1306-00	DCP-PWB (WITHOUT COMPONENT)	1
69	039-1328-01	FPC (WITHOUT COMPONENT)	1
70	347-5935-00	SPACER	1
71	347-5919-00	SURGE PROTECTOR	1
72	345-8265-00	CUSHION	2
73	347-5920-00	COVER FILM	1
74	347-5941-00	HEAT-PROTECT	1
75	291-0078-00	STICKER	1
76	341-1710-00	ROLLER(RIGHT)	1
77	946-0071-01	ARM-L-ASSY	1
78	946-0072-01	ARM-R-ASSY	1
79	946-0070-00	HOLDER-ASSY	1
80	291-0083-00	STICKER	1

## ■ ELECTRICAL PARTS LIST:

### Main PWB (B1) section

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
IC 201	051-1819-50	TDA7479D	D 308	001-0330-00	ISS119	C 120	178-5622-78	50V 5600PF
IC 202	051-0350-55	NJM4558M	D 309	001-0330-00	ISS119	C 121	178-3332-78	25V 0.033 μF
IC 301	051-3261-00	BA4906	D 401	001-0376-32	MTZ5.6JB	C 122	178-1032-78	25V 0.01 μF
IC 501	051-5016-90	TDA7404	D 402	001-0376-47	MTZ9.1JB	C 123	183-4743-62	50V 0.47 μF
IC 601	051-2031-11	LA4743	D 403	001-0330-00	ISS119	C 124	042-9002-01	50V 3.3 μF (LN)
IC 701	051-7400-08	HD74LS07FP	D 601	001-0592-00	RM4Z	C 125	178-1232-78	25V 0.012 μF
IC 801	052-1919-00	μ PD178018AGC	D 602	001-0466-01	S5688G	C 126	178-1032-78	25V 0.01 μF
Q 101	108-0669-00	2SK669	D 603	001-0466-01	S5688G	C 127	176-1007-00	50V 10PF
Q 102	102-2712-51	2SC2712GL	D 604	001-0466-01	S5688G	C 128	183-1073-22	10V 100 μF
Q 103	102-2712-51	2SC2712GL	D 605	001-0466-01	S5688G	C 129	183-1063-52	35V 10 μF
Q 104	102-2712-51	2SC2712GL	D 606	001-0466-01	S5688G	C 130	178-1032-78	25V 0.01 μF
Q 105	103-1306-00	2SD1306	D 607	001-0466-01	S5688G	C 131	178-1022-78	50V 1000PF
Q 107	125-0002-03	RN2403	D 608	001-0466-01	S5688G	C 132	176-1011-00	50V 100PF
Q 108	125-2004-02	RN1402	D 609	001-0466-01	S5688G	C 134	176-1007-00	50V 10PF
Q 201	125-0002-02	RN2402	D 610	001-0330-00	ISS119	C 135	178-1022-78	50V 1000PF
Q 204	125-2004-02	RN1402	D 701	001-0330-00	ISS119	C 136	178-1032-78	25V 0.01 μF
Q 205	125-2004-02	RN1402	D 702	001-0330-00	ISS119	C 201	178-8212-78	50V 820PF
Q 301	102-2712-51	2SC2712GL	D 801	001-0330-00	ISS119	C 202	178-6812-78	50V 680PF
Q 303	102-2712-51	2SC2712GL	D 802	001-7011-06	CL-150SR-CD	C 203	176-8201-00	50V 82PF
Q 304	102-2712-51	2SC2712GL	D 803	001-0377-10	MA4030L	C 204	176-4701-00	50V 47PF
Q 305	101-1237-00	2SB1237	D 804	001-0376-47	MTZ9.1JB	C 205	176-1007-00	50V 10PF
Q 306	125-0002-02	RN2402	D 901	001-0330-00	ISS119	C 206	183-2253-62	50V 2.2 μF
Q 307	125-0002-02	RN2402	L 101	010-4007-00	5.6 μH	C 207	183-4763-32	16V 47 μF
Q 401	103-1858-00	2SD1858	L 102	010-2230-38	220H	C 208	178-5612-78	50V 560PF
Q 402	125-0002-02	RN2402	L 103	010-2230-31	56 μH	C 209	178-1022-78	50V 1000PF
Q 403	125-2004-06	RN1406	L 104	010-2230-38	220 μH	C 211	178-2232-78	25V 0.022 μF
Q 404	125-2004-06	RN1406	L 201	010-2230-38	220 μH	C 212	178-2232-78	25V 0.022 μF
Q 405	101-1243-00	2SB1243	L 601	009-9006-50	CHOKE	C 213	178-1032-78	25V 0.01 μF
Q 406	103-2012-00	2SD2012	L 701	010-2230-26	22 μH	C 214	178-3312-78	50V 330PF
Q 407	103-1858-00	2SD1858	L 801	010-2230-38	220 μH	C 216	178-1042-78	25V 0.1 μF
Q 408	125-2004-02	RN1402	L 803	010-2230-26	22 μH	C 302	172-1041-10	50V 0.1 μF
Q 501	103-1306-00	2SD1306	L 804	010-2230-14	2.2 μH	C 303	172-1031-10	50V 0.01 μF
Q 502	103-1306-00	2SD1306	X 201	061-3013-00	4.332MHz	C 305	183-1063-52	35V 10 μF
Q 503	103-1306-00	2SD1306	X 801	061-1064-00	4.5MHz	C 307	176-1007-00	50V 10PF
Q 504	103-1306-00	2SD1306	C 101	176-1801-00	50V 18PF	C 401	183-1073-22	10V 100 μF
Q 601	125-0002-02	RN2402	C 102	178-1032-78	25V 0.01 μF	C 402	183-1063-52	35V 10 μF
Q 701	125-2004-02	RN1402	C 103	178-1032-78	25V 0.01 μF	C 404	183-1073-22	10V 100 μF
Q 802	101-1243-00	2SB1243	C 104	178-1022-78	50V 1000PF	C 405	183-1063-52	35V 10 μF
Q 803	125-2004-02	RN1402	C 105	183-1073-22	10V 100 μF	C 406	178-1532-78	25V 0.015 μF
Q 804	100-1162-00	2SA1162	C 106	183-1073-22	10V 100 μF	C 407	178-1532-78	25V 0.015 μF
Q 805	103-1858-00	2SD1858	C 107	183-1073-22	10V 100 μF	C 408	178-1022-78	50V 1000PF
Q 806	100-1162-00	2SA1162	C 108	176-1011-00	50V 100PF	C 409	178-1032-78	25V 0.01 μF
Q 807	125-2004-02	RN1402	C 109	178-3312-78	50V 330PF	C 410	178-1022-78	50V 1000PF
Q 901	100-1162-00	2SA1162	C 110	178-1022-78	50V 1000PF	C 411	178-1032-78	25V 0.01 μF
D 201	001-0330-00	ISS119	C 111	178-1522-78	50V 1500PF	C 501	178-1042-78	25V 0.1 μF
D 202	001-0330-00	ISS119	C 112	183-1053-62	50V 1 μF	C 502	178-1042-78	25V 0.1 μF
D 301	001-0376-41	MTZ7.5JB	C 113	176-1011-00	50V 100PF	C 503	183-1053-62	50V 1 μF
D 302	001-0376-26	MTZ4.7JB	C 114	176-1011-00	50V 100PF	C 504	183-1053-62	50V 1 μF
D 303	001-0466-01	S5688G	C 115	178-2232-78	25V 0.022 μF	C 505	183-1053-62	50V 1 μF
D 306	001-0466-01	S5688G	C 116	178-2232-78	25V 0.022 μF	C 506	183-1053-62	50V 1 μF
D 306	001-0466-01	S5688G	C 117	183-4753-62	50V 4.7 μF	C 509	183-4763-32	16V 47 μF
D 307	001-0330-00	ISS119	C 118	178-2232-78	25V 0.022 μF	C 510	182-1063-33	16V 10 μF

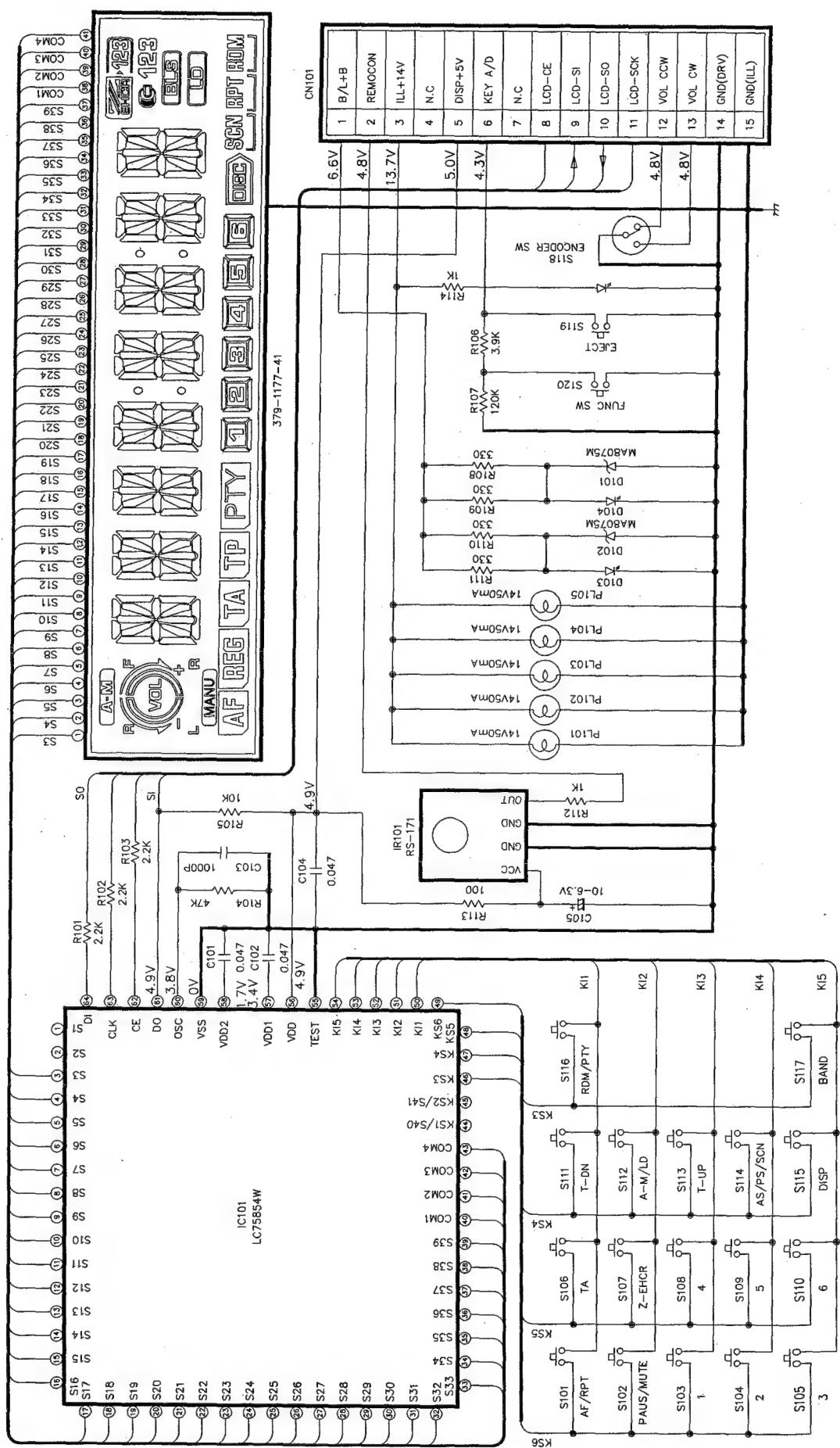
REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C 511	182-1063-33	16V 10 $\mu$ F	R 117	117-1021-10	1/10W 1K $\Omega$	R 605	117-4721-10	1/10W 4.7K $\Omega$
C 512	182-1063-33	16V 10 $\mu$ F	R 203	117-2221-10	1/10W 2.2K $\Omega$	R 606	117-4721-10	1/10W 4.7K $\Omega$
C 513	182-1063-33	16V 10 $\mu$ F	R 205	117-3321-10	1/10W 3.3K $\Omega$	R 607	117-4721-10	1/10W 4.7K $\Omega$
C 514	183-1063-52	35V 10 $\mu$ F	R 206	117-3331-10	1/10W 33K $\Omega$	R 608	117-4721-10	1/10W 4.7K $\Omega$
C 515	178-1032-78	25V 0.01 $\mu$ F	R 207	117-1031-10	1/10W 10K $\Omega$	R 610	117-4721-10	1/10W 4.7K $\Omega$
C 516	178-1022-78	50V 1000PF	R 208	117-1231-10	1/10W 12K $\Omega$	R 701	117-4721-10	1/10W 4.7K $\Omega$
C 520	176-2701-00	50V 27PF	R 211	117-2211-10	1/10W 220 $\Omega$	R 702	117-4721-10	1/10W 4.7K $\Omega$
C 521	178-1022-78	50V 1000PF	R 212	117-1041-10	1/10W 100K $\Omega$	R 703	117-1021-10	1/10W 1K $\Omega$
C 522	178-1022-78	50V 1000PF	R 301	117-4731-10	1/10W 47K $\Omega$	R 704	117-4721-10	1/10W 4.7K $\Omega$
C 523	178-4712-78	50V 470PF	R 302	117-2231-10	1/10W 22K $\Omega$	R 705	117-1021-10	1/10W 1K $\Omega$
C 601	172-2231-10	50V 0.022 $\mu$ F	R 303	117-2231-10	1/10W 22K $\Omega$	R 706	117-4721-10	1/10W 4.7K $\Omega$
C 602	042-0447-00	16V 2200 $\mu$ F	R 305	117-2231-10	1/10W 22K $\Omega$	R 707	117-1021-10	1/10W 1K $\Omega$
C 603	183-3353-62	50V 3.3 $\mu$ F	R 308	117-4721-10	1/10W 4.7K $\Omega$	R 708	111-1001-91	1/4WSS 10 $\Omega$
C 604	183-4743-62	50V 0.47 $\mu$ F	R 309	117-4721-10	1/10W 4.7K $\Omega$	R 709	117-1031-10	1/10W 10K $\Omega$
C 605	183-4763-32	16V 47 $\mu$ F	R 311	111-3321-91	1/4WSS 3.3K $\Omega$	R 711	117-4731-10	1/10W 47K $\Omega$
C 606	182-4746-63	50V 0.47 $\mu$ F	R 312	117-1031-10	1/10W 10K $\Omega$	R 801	117-1041-10	1/10W 100K $\Omega$
C 607	182-4746-63	50V 0.47 $\mu$ F	R 313	117-4721-10	1/10W 4.7K $\Omega$	R 802	117-2221-10	1/10W 2.2K $\Omega$
C 608	182-4746-63	50V 0.47 $\mu$ F	R 314	117-1031-10	1/10W 10K $\Omega$	R 803	117-1031-10	1/10W 10K $\Omega$
C 609	182-4746-63	50V 0.47 $\mu$ F	R 402	117-1041-10	1/10W 100K $\Omega$	R 804	117-2221-10	1/10W 2.2K $\Omega$
C 611	172-1041-10	50V 0.1 $\mu$ F	R 403	117-1041-10	1/10W 100K $\Omega$	R 805	117-1031-10	1/10W 10K $\Omega$
C 612	172-1041-10	50V 0.1 $\mu$ F	R 404	117-1041-10	1/10W 100K $\Omega$	R 806	117-1031-10	1/10W 10K $\Omega$
C 613	172-1041-10	50V 0.1 $\mu$ F	R 406	117-4731-10	1/10W 47K $\Omega$	R 810	117-2231-10	1/10W 22K $\Omega$
C 614	172-1041-10	50V 0.1 $\mu$ F	R 407	111-2291-91	1/4WSS 2.2 $\Omega$	R 811	117-1021-10	1/10W 1K $\Omega$
C 701	178-4732-78	25V 0.047 $\mu$ F	R 408	111-2291-91	1/4WSS 2.2 $\Omega$	R 812	117-1021-10	1/10W 1K $\Omega$
C 801	176-2201-00	50V 22PF	R 412	111-2211-91	1/4WSS 220 $\Omega$	R 818	117-4731-10	1/10W 47K $\Omega$
C 802	176-2201-00	50V 22PF	R 413	111-1221-91	1/4WSS 1.2K $\Omega$	R 819	117-1041-10	1/10W 100K $\Omega$
C 803	178-4732-78	25V 0.047 $\mu$ F	R 414	117-4731-10	1/10W 47K $\Omega$	R 820	117-1041-10	1/10W 100K $\Omega$
C 804	178-4732-78	25V 0.047 $\mu$ F	R 415	111-4711-91	1/4WSS 470 $\Omega$	R 821	117-2221-10	1/10W 2.2K $\Omega$
C 805	178-1032-78	25V 0.01 $\mu$ F	R 501	117-4721-10	1/10W 4.7K $\Omega$	R 822	117-1031-10	1/10W 10K $\Omega$
C 806	183-4763-32	16V 47 $\mu$ F	R 502	117-4721-10	1/10W 4.7K $\Omega$	R 823	111-5611-91	1/4WSS 560 $\Omega$
C 807	183-1073-22	10V 100 $\mu$ F	R 503	117-1021-10	1/10W 1K $\Omega$	R 824	111-1011-91	1/4WSS 100 $\Omega$
C 808	178-1032-78	25V 0.01 $\mu$ F	R 504	117-1021-10	1/10W 1K $\Omega$	R 825	111-1011-91	1/4WSS 100 $\Omega$
C 815	178-1042-78	25V 0.1 $\mu$ F	R 505	117-1031-10	1/10W 10K $\Omega$	R 826	117-1821-10	1/10W 1.8K $\Omega$
C 816	178-1022-78	50V 1000PF	R 506	117-1031-10	1/10W 10K $\Omega$	R 827	117-1041-10	1/10W 100K $\Omega$
C 817	176-1011-00	50V 100PF	R 507	117-3311-10	1/10W 330 $\Omega$	R 829	111-4711-81	1/2WSS 470 $\Omega$
C 818	178-1032-78	25V 0.01 $\mu$ F	R 508	117-3311-10	1/10W 330 $\Omega$	R 830	117-1031-10	1/10W 10K $\Omega$
C 820	178-4732-78	25V 0.047 $\mu$ F	R 509	117-1021-10	1/10W 1K $\Omega$	R 831	117-1021-10	1/10W 1K $\Omega$
R 102	117-1021-10	1/10W 1K $\Omega$	R 510	117-1021-10	1/10W 1K $\Omega$	R 832	117-1031-10	1/10W 10K $\Omega$
R 103	117-2731-10	1/10W 27K $\Omega$	R 511	117-1031-10	1/10W 10K $\Omega$	R 833	117-2231-10	1/10W 22K $\Omega$
R 104	117-3311-10	1/10W 330 $\Omega$	R 512	117-1031-10	1/10W 10K $\Omega$	R 834	117-4731-10	1/10W 47K $\Omega$
R 105	117-4721-10	1/10W 4.7K $\Omega$	R 513	117-3311-10	1/10W 330 $\Omega$	R 901	117-1031-10	1/10W 10K $\Omega$
R 106	117-1021-10	1/10W 1K $\Omega$	R 514	117-3311-10	1/10W 330 $\Omega$	R 902	117-4721-10	1/10W 4.7K $\Omega$
R 107	117-3311-10	1/10W 330 $\Omega$	R 515	117-4721-10	1/10W 4.7K $\Omega$	R 903	117-4731-10	1/10W 47K $\Omega$
R 108	117-5631-10	1/10W 56K $\Omega$	R 516	117-4721-10	1/10W 4.7K $\Omega$	SUP101	060-0122-20	DSP-141N
R 109	117-6821-10	1/10W 6.8K $\Omega$	R 517	117-4721-10	1/10W 4.7K $\Omega$	VR 101	012-4738-13	470K $\Omega$
R 110	117-1021-10	1/10W 1K $\Omega$	R 518	117-4721-10	1/10W 4.7K $\Omega$	CN 101	074-1198-68	OUTLET SOCKET
R 111	117-2221-10	1/10W 2.2K $\Omega$	R 519	117-4721-10	1/10W 4.7K $\Omega$	CN 102	074-1115-00	OUTLET SOCKET
R 112	117-1021-10	1/10W 1K $\Omega$	R 520	117-4721-10	1/10W 4.7K $\Omega$	CN 105	074-1126-10	OUTLET SOCKET
R 113	117-5631-10	1/10W 56K $\Omega$	R 524	117-1031-10	1/10W 10K $\Omega$	CN 106	074-0986-26	OUTLET SOCKET
R 114	117-6821-10	1/10W 6.8K $\Omega$	R 602	117-1031-10	1/10W 10K $\Omega$	S 301	013-6100-00	RESET SWITCH
R 116	117-2221-10	1/10W 2.2K $\Omega$	R 604	117-1231-10	1/10W 12K $\Omega$	FUSE	060-0057-57	15A

**Switch PWB (B2) section**

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
IC 101	051-6013-00	LC75854W	R 108	032-0092-80	1/10W 330Ω 1%	S 105	013-6001-50	SKQCAB
D 101	001-0529-41	MA8075M	R 109	032-0092-80	1/10W 330Ω 1%	S 106	013-6001-50	SKQCAB
D 102	001-0529-41	MA8075M	R 110	032-0092-80	1/10W 330Ω 1%	S 107	013-6305-00	SKQMAH
D 103	001-7046-00	NSPW310BS	R 111	032-0092-80	1/10W 330Ω 1%	S 108	013-6305-00	SKQMAH
D 104	001-7046-00	NSPW310BS	R 112	117-1021-10	1/10W 1KΩ	S 109	013-6001-50	SKQCAB
C 101	178-4732-78	25V 0.047 μF	R 113	117-1011-10	1/10W 100Ω	S 110	013-6001-50	SKQCAB
C 102	178-4732-78	25V 0.047 μF	R 114	117-1021-10	1/10W 1KΩ	S 111	013-6305-00	SKQMAH
C 103	178-1022-78	50V 1000PF	CN 101	076-0535-01	PLUG	S 112	013-6305-00	SKQMAH
C 104	178-4732-78	25V 0.047 μF	PL 101	017-0444-00	14V 50MA	S 113	013-6305-00	SKQMAH
C 105	042-0416-51	6.3V 10 μF	PL 102	017-0444-00	14V 50MA	S 114	013-6001-50	SKQCAB
R 101	117-2221-10	1/10W 2.2KΩ	PL 103	017-0444-00	14V 50MA	S 115	013-6305-00	SKQMAH
R 102	117-2221-10	1/10W 2.2KΩ	PL 104	017-0444-00	14V 50MA	S 116	013-6305-00	SKQMAH
R 103	117-2221-10	1/10W 2.2KΩ	PL 105	017-0444-00	14V 50MA	S 117	013-6305-00	SKQMAH
R 104	117-4731-10	1/10W 47KΩ	S 101	013-6001-50	SKQCAB	S 118	016-9900-66	SIM-026MT
R 105	117-1031-10	1/10W 10KΩ	S 102	013-6305-00	SKQMAH	S 119	013-6511-50	LS9J2M-1SR-T
R 106	117-3921-10	1/10W 3.9KΩ	S 103	013-6305-00	SKQMAH	S 120	013-6305-00	SKQMAH
R 107	117-1241-10	1/10W 120KΩ	S 104	013-6001-50	SKQCAB	IR 101	060-4008-00	RS-171

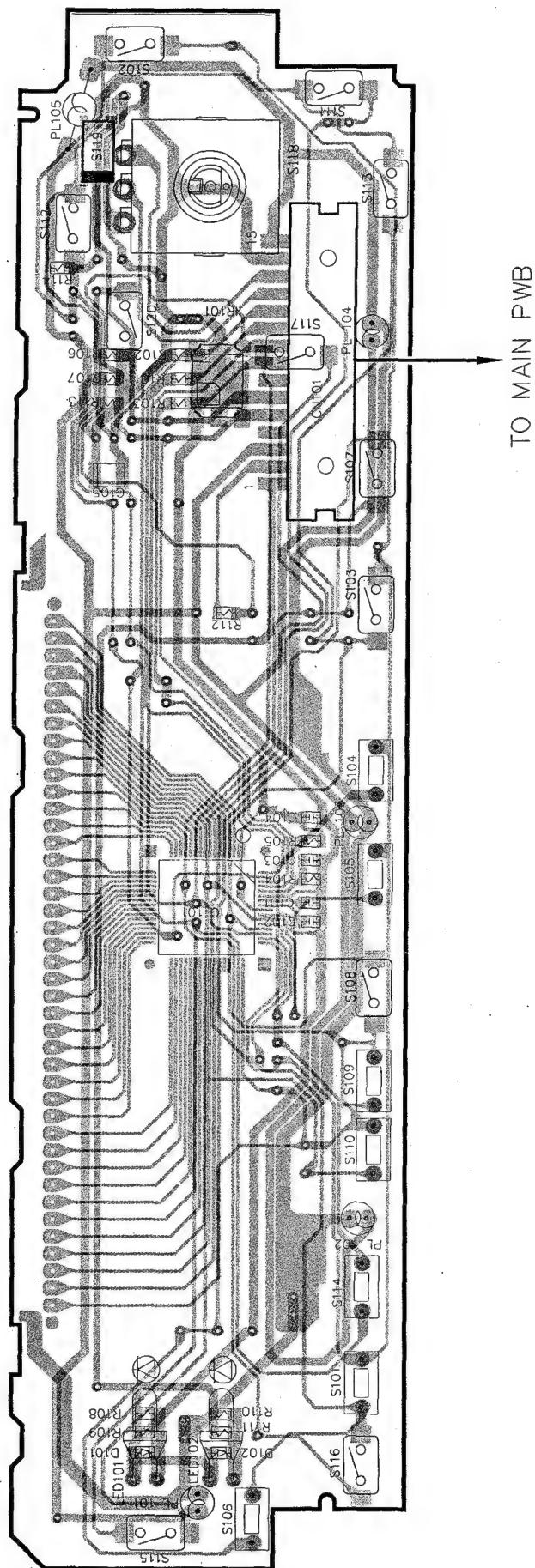
## CIRCUIT DIAGRAM:

Switch PWB (B2) section



## ■ PRINTED WIRING BOARD:

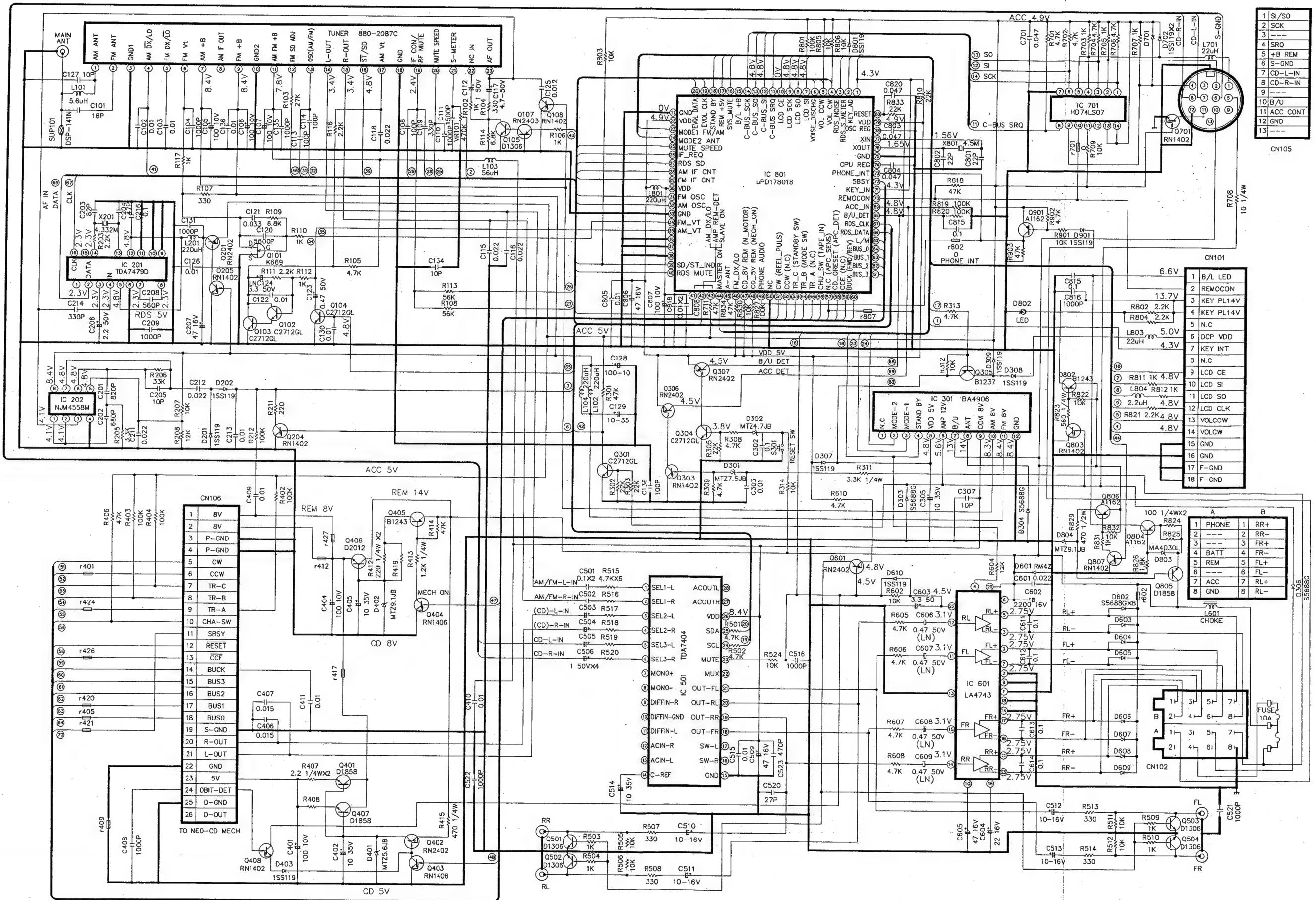
Switch PWB (B2) section





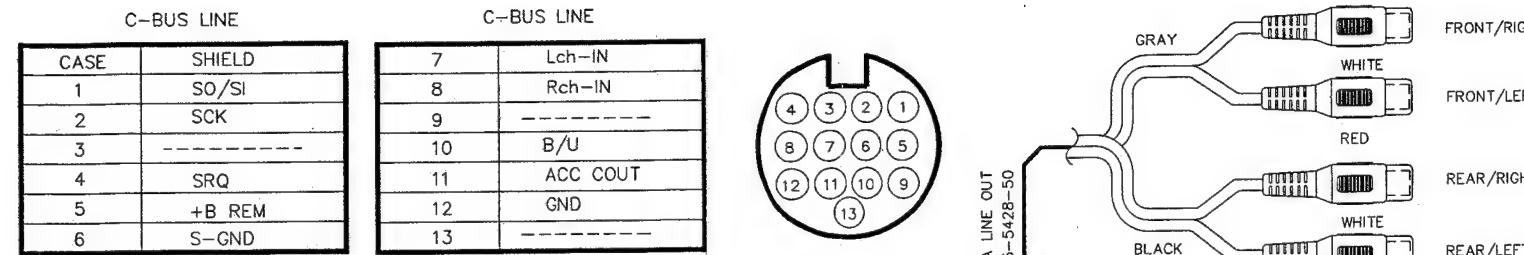
#### ■ CIRCUIT DIAGRAM:

### Main PWB (B1) section



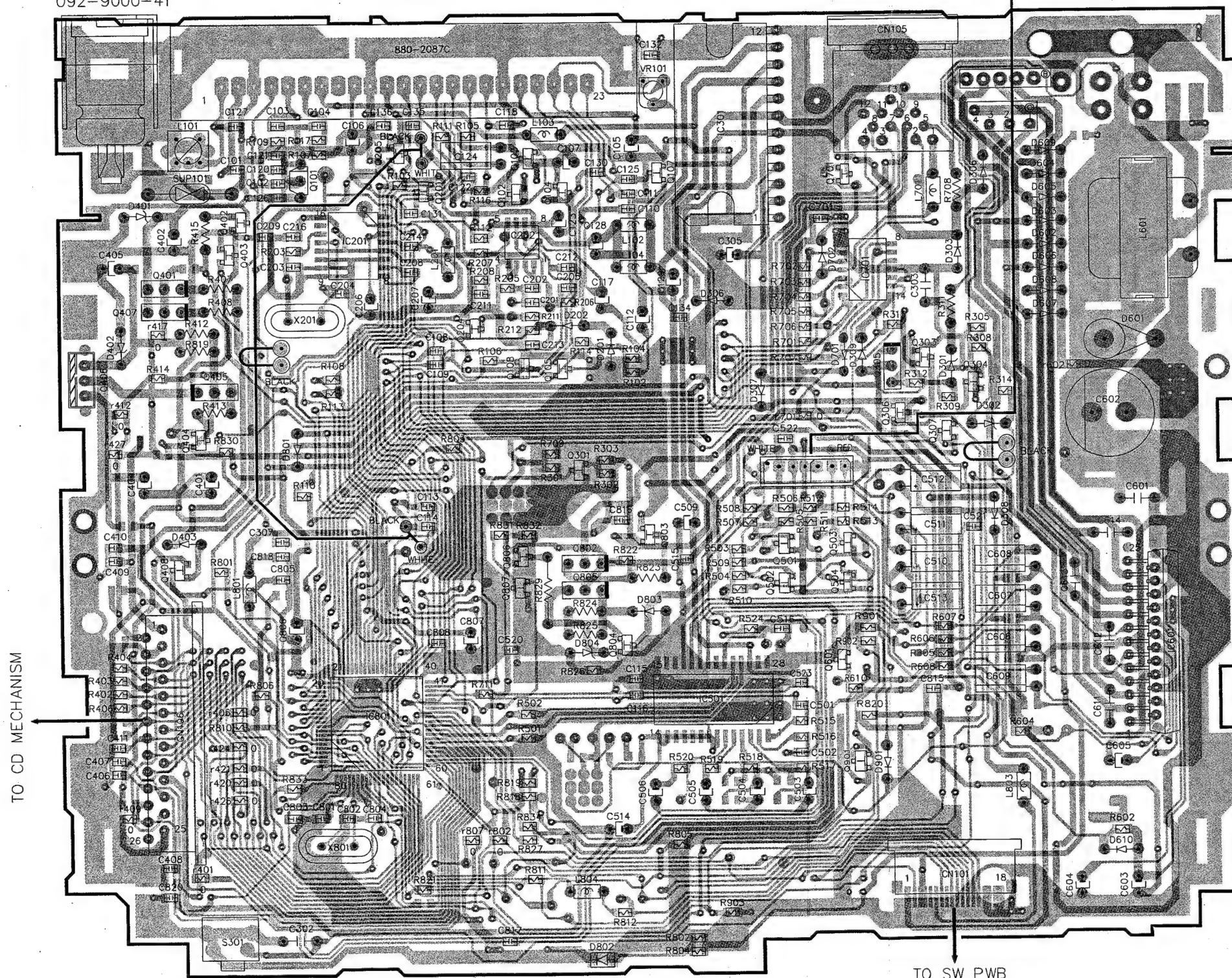
## ■ PRINTED WIRING BOARD:

### Main PWB (B1) section

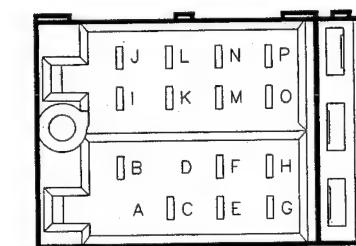
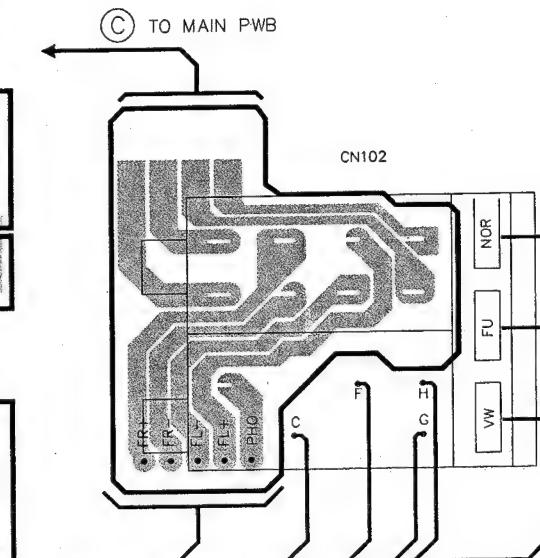


ISO PWB (B3) section

092-9000-41



ISO PWB (B3) section

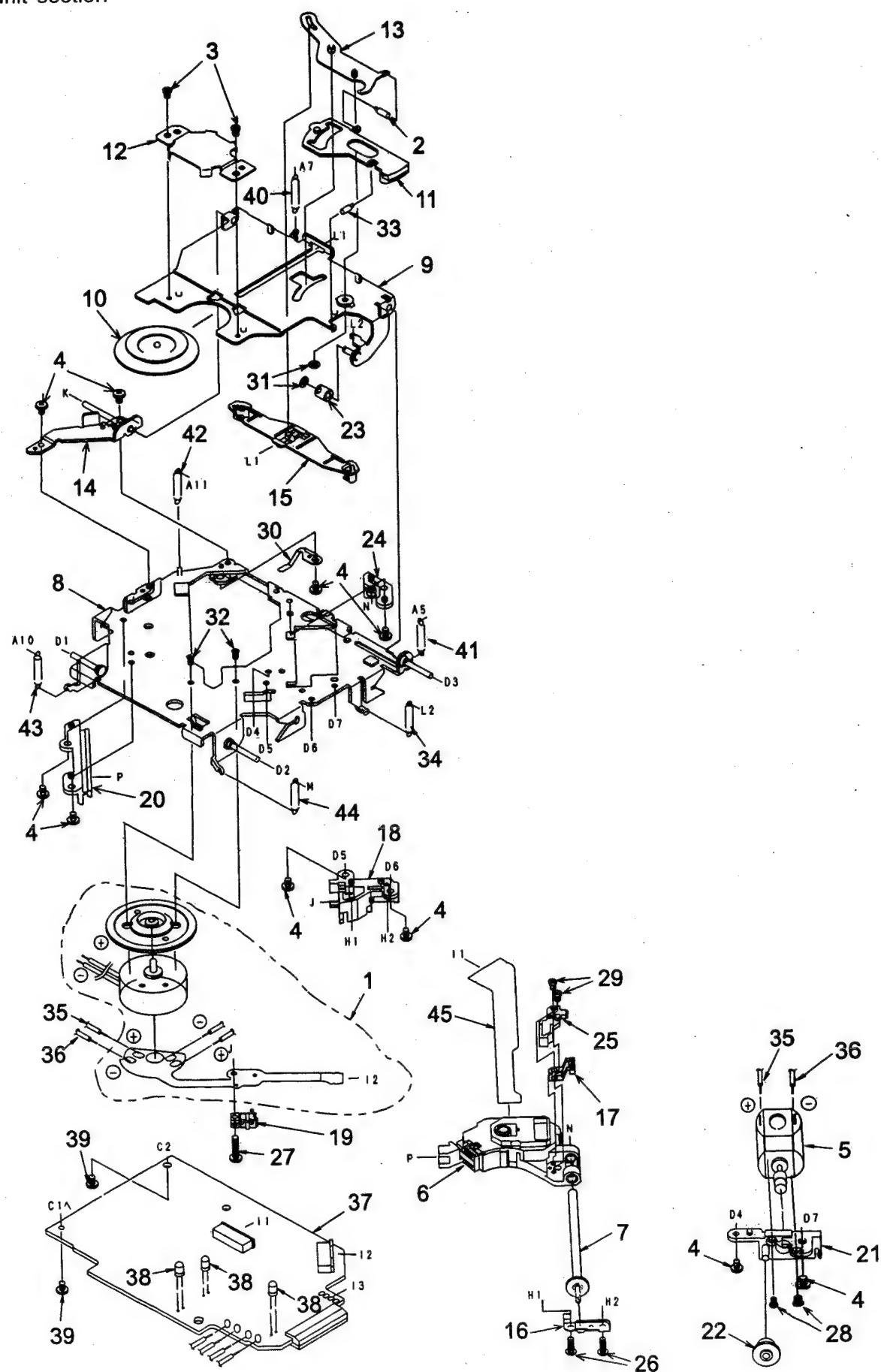


A	B
---	I RRΩ
B PHONE	J RR⊕
C BATT	K FRΩ
D ---	L FR⊕
E ---	M FLΩ
F REM	N FL⊕
G GND	O RLΩ
H ACC	P RL⊕

■ EXPLODEDVIEW:

CD mechanism section 929-0092-80(BB-CD)

Drive unit section



## ■ PARTS LIST:

Note) Several different parts of the same reference number are alternative parts.

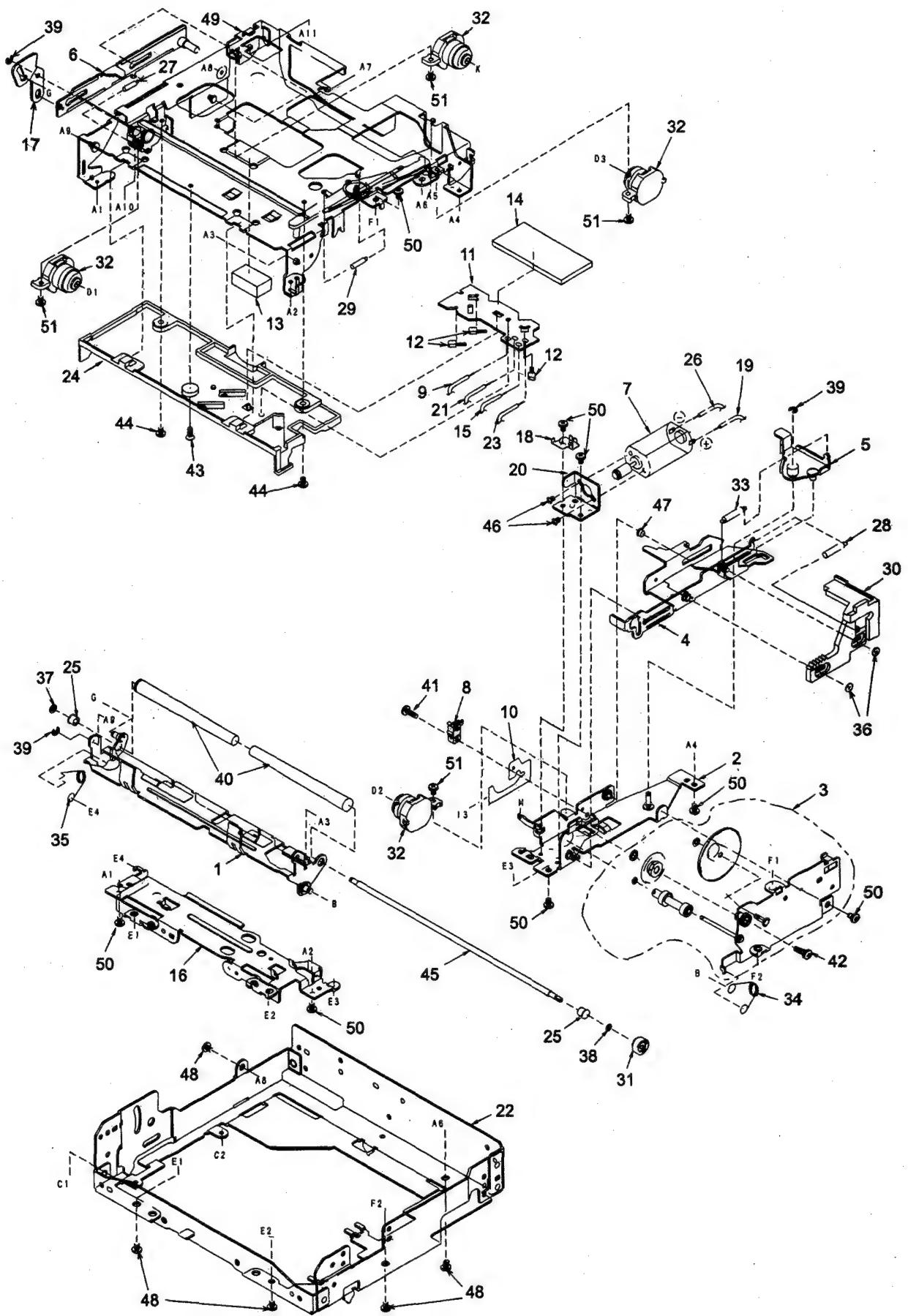
One of those parts is used in the set.

Drive unit section

NO.	PARTS NO.	DESCRIPTION	QTY
1	SMA-151-100	MOTOR ASSY (SPINDLE)	1
2	750-3098-00	L-LINK SPRING	1
3	716-1468-00	SCREW (M2×2.5)	2
4	716-2003-81	SCREW (M2×3)	10
5	SMA-146-100	MOTOR ASSY (SLED)	1
6	969-0008-00	PICK UP UNIT	1
7	HBS-432-100	LS-GEAR ASSY	1
8	966-0447-05	DR-PLATE-ASSY	1
9	966-0449-22	CLAMP-LINK-ASSY	1
10	621-0205-02	CLAMPER RING	1
11	621-0251-03	LOCK LINK	1
12	620-0198-03	CLAMPER PLATE	1
13	966-0314-01	STOP LINK-ASSY	1
14	966-0448-21	SIDE PLATE-ASSY	1
15	621-0252-03	DISC STOPPER	1
16	620-0491-03	SPRING PLATE	1
17	966-0454-00	SCREW H-RACK-ASSY	1
18	621-0358-02	LS-HOLDER-F	1
19	013-7100-00	SWITCH (LIMIT)	1
20	621-0357-03	PICK UP GUIDE	1
21	621-0253-02	MOTOR HOLDER	1
22	621-0255-02	SECOND GEAR	1
23	622-1073-02	CLAMPER ROLLER	1
24	621-0359-02	LS-HOLDER-R	1

NO.	PARTS NO.	DESCRIPTION	QTY
25	621-0375-00	SH-BASE	1
26	716-0675-00	SCREW (M2×5.5)	2
27	716-1555-00	WAVE SCREW ( $\phi$ 2×8)	1
28	732-2004-11	SEMS SCREW (M2×4)	2
29	739-1735-17	PRECISION SCREW (M1.7×3.5)	2
30	620-0690-01	RATTLE PLATE	1
31	746-0761-00	WASHER	2
32	716-1733-00	SCREW (M1.7×2.3)	2
33	750-3099-00	ES-SPRING	1
34	750-3097-03	CLAMPER SPRING	1
35	816-2373-00	LEAD WIRE (WHT)	1
36	816-2372-00	LEAD WIRE (BLU)	1
37	039-1576-00	CD PWB (WITHOUT COMPONENT)	1
38	001-0563-00	LED	3
39	716-1670-00	SCREW (M2×4)	2
40	750-3202-00	CENTER SPRING-B	1
41	750-3096-01	DR-SPRING R	1
42	750-3164-00	DR-SPRING LR	1
43	750-3188-00	DR-SPRING F-B	1
44	750-3201-00	DR-SPRING F-R	1
45	039-1587-00	FPC (WITHOUT COMPONENT)	1

## MECH chassis section



MECH chassis section

NO.	PARTS NO.	DESCRIPTION	Q'TY
1	966-0309-04	L-DISC-G-ASSY	1
2	966-0310-06	SHIFT-P-CH-ASSY	1
3	HBS-430-100	GEAR PLATE ASSY	1
4	966-0312-06	SHIFT-PLATE-ASSY	1
5	966-0358-01	DRIVE-L-PLATE-ASSY	1
6	966-0359-03	SIDE-L-PLATE-ASSY	1
7	SMA-147-100	MOTOR ASSY (LOADING)	1
8	013-3879-01	CHUCKING SWITCH	1
9	804-4910-60	VINYL-COAT-WIRE (YEL)	1
10	039-0586-01	CHUCKING SWITCH PWB (WITHOUT COMPONENT)	1
11	039-0588-01	SENSOR PWB (WITHOUT COMPONENT)	1
12	060-0252-01	PHOTO-TR	3
13	345-7513-01	CLAMPER SHEET	1
14	345-7514-00	SENSOR PWB SHEET	1
15	802-4910-60	VINYL-COAT-WIRE (RED)	1
16	620-0485-04	FRONT PLATE	1
17	620-0488-01	S-L-LINK PLATE	1
18	620-0489-02	MOTOR PLATE	1
19	802-4904-60	VINYL-COAT-WIRE (RED)	1
20	620-0492-01	MOTOR BRACKET	1
21	801-4910-60	VINYL-COAT-WIRE (BRN)	1
22	620-0773-01	CD-MECH-BRKT	1
23	800-4910-60	VINY-COAT-WIRE (BLK)	1
24	621-0402-01	U-DISC GUIDE-F	1
25	621-0243-02	ROLLER SLEEVE	2

NO.	PARTS NO.	DESCRIPTION	Q'TY
26	800-4904-60	VINYL-COAT-WIRE (BLK)	1
27	750-3189-00	SIDE-L-SPRING	1
28	750-3098-00	L-LINK SPRING	1
29	750-3094-00	S-ARM SPRING	1
30	621-0248-07	RACK GEAR	1
31	621-0249-02	ROLLER GEAR	1
32	629-0074-00	DAMPER	4
33	750-3092-03	SHIFT SPRING	1
34	750-3091-03	LOADING-SPRING-R	1
35	750-3090-02	LOADING-SPRING-L	1
36	746-0877-02	WASHER	2
37	746-0762-00	WASHER	1
38	746-0712-03	WASHER	1
39	743-1500-10	E-RING	3
40	621-0258-03	LOADING ROLLER	2
41	716-1742-00	SCREW (M2×5)	1
42	716-1704-00	SCREW (M2×7)	1
43	716-1677-00	SCREW (M2×5)	1
44	716-1507-00	SCREW (M2×3)	2
45	622-1072-05	ROLLER SHAFT	1
46	716-1468-00	SCREW (M2×2.5)	2
47	622-1219-01	SHIFT ROLLER	1
48	714-2603-81	SCREW (M2.6×3)	5
49	966-0308-10	CHASSIS ASSY	1
50	714-2003-81	SCREW (M2×3)	8
51	716-1670-00	SCREW (M2×4)	4

## ■ ELECTRICAL PARTS LIST:

### CD mechanism section (B3)

Note) Several different parts of the same reference number are alternative parts.

One of those parts is used in the set.

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C1	163-1073-10	6.3V 100 $\mu$ F	C36	176-6801-00	68pF CH	R8	117-1041-10	1/10W 100K $\Omega$
C3	178-1042-78	0.1 $\mu$ F	C37	176-2201-00	22pF CH	R9	117-1031-10	1/10W 10K $\Omega$
C4	178-2222-78	2200pF	C38	178-1042-78	0.1 $\mu$ F	R10	117-4731-10	1/10W 47K $\Omega$
C5	178-1042-78	0.1 $\mu$ F	C39	163-4763-05	4V 47 $\mu$ F	R12	117-4741-10	1/10W 470K $\Omega$
C6	178-1042-78	0.1 $\mu$ F	C44	178-2242-78	0.22 $\mu$ F	R13	117-3331-10	1/10W 33K $\Omega$
C7	178-1042-78	0.1 $\mu$ F	C45	178-2242-78	0.22 $\mu$ F	R14	117-3321-10	1/10W 3.3K $\Omega$
C8	176-1501-00	15pF CH	C46	163-4763-10	6.3V 47 $\mu$ F	R15	117-1031-10	1/10W 10K $\Omega$
C9	176-1501-00	15pF CH	C47	178-8222-78	8200pF	R16	117-3321-10	1/10W 3.3K $\Omega$
C10	176-1201-00	12pF CH	C48	178-1042-78	0.1 $\mu$ F	R17	117-3321-10	1/10W 3.3K $\Omega$
C11	178-1042-78	0.1 $\mu$ F	C50	163-1073-10	6.3V 100 $\mu$ F	R18	117-3321-10	1/10W 3.3K $\Omega$
C13	178-1042-78	0.1 $\mu$ F	C51	178-1042-78	0.1 $\mu$ F	R19	117-3321-10	1/10W 3.3K $\Omega$
C14	178-1042-78	0.1 $\mu$ F	C52	178-2232-78	0.022 $\mu$ F	R20	117-3321-10	1/10W 3.3K $\Omega$
C15	178-1042-78	0.1 $\mu$ F	C54	176-2201-00	22pF CH	R21	117-2221-10	1/10W 2.2K $\Omega$
C16	178-1042-78	0.1 $\mu$ F	C61	178-1042-78	0.1 $\mu$ F	R22	117-8211-10	1/10W 820K $\Omega$
C17	163-1073-31	16V 100 $\mu$ F	C63	178-1042-78	0.1 $\mu$ F	R23	117-9131-10	1/10W 91K $\Omega$
C18	176-4701-00	47pF CH	C64	178-1042-78	0.1 $\mu$ F	R24	117-1041-10	1/10W 100K $\Omega$
C19	178-1532-78	0.015 $\mu$ F	C65	178-1042-78	0.1 $\mu$ F	R25	117-1041-10	1/10W 100K $\Omega$
C20	178-1032-78	0.01 $\mu$ F	D4	001-0516-00	MA111	R26	117-1841-10	1/10W 180K $\Omega$
C21	178-2722-78	2700pF	IC1	051-5704-00	TA2096FN	R27	117-1841-10	1/10W 180K $\Omega$
C22	178-4722-78	4700pF	IC2	051-6342-00	TC9462F	R28	117-2211-10	1/10W 220 $\Omega$
C23	178-1042-78	0.1 $\mu$ F	IC3	051-6045-08	BA5984FP	R29	117-2201-10	1/10W 22 $\Omega$
C24	178-1042-78	0.1 $\mu$ F	J1	074-1138-66	16P	R30	117-1041-10	1/10W 100K $\Omega$
C25	178-1042-78	0.1 $\mu$ F	J2	074-1138-06	6P	R31	117-1041-10	1/10W 100K $\Omega$
C26	178-4712-78	470pF	L1	010-2155-93	10 $\mu$ H	R32	117-1041-10	1/10W 100K $\Omega$
C27	178-4712-78	470pF	L3	010-2199-74	10 $\mu$ H J	R33	117-1041-10	1/10W 100K $\Omega$
C28	178-4732-78	0.047 $\mu$ F	Q1	101-1188-50	2SB1188PQR	R34	117-1041-10	1/10W 100K $\Omega$
C29	178-4732-78	0.047 $\mu$ F	R1	117-2211-10	1/10W 220 $\Omega$	R35	117-2241-10	1/10W 220K $\Omega$
C30	178-4732-78	0.047 $\mu$ F	R2	117-2211-10	1/10W 220 $\Omega$	R36	117-1041-10	1/10W 100K $\Omega$
C31	178-4732-78	0.047 $\mu$ F	R3	117-5611-10	1/10W 560 $\Omega$	R37	117-1041-10	1/10W 100K $\Omega$
C32	163-4763-05	4V 47 $\mu$ F	R4	117-5611-10	1/10W 560 $\Omega$	R38	117-8231-10	1/10W 82K $\Omega$
C33	163-4763-05	4V 47 $\mu$ F	R5	117-4711-10	1/10W 470 $\Omega$	R39	117-1841-10	1/10W 180K $\Omega$
C34	176-1801-00	18pF CH	R6	117-3311-10	1/10W 330 $\Omega$	X1	061-3500-90	16.920MHz
C35	176-6097-00	6pF CH	R7	117-4721-10	1/10W 4.7K $\Omega$			

### Sensor PWB section (B4)

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
Q101	060-0252-01	PT4850F	Q102	060-0252-01	PT4850F	Q103	060-0252-01	PT4850F

### Chuck SW PWB section (B5)

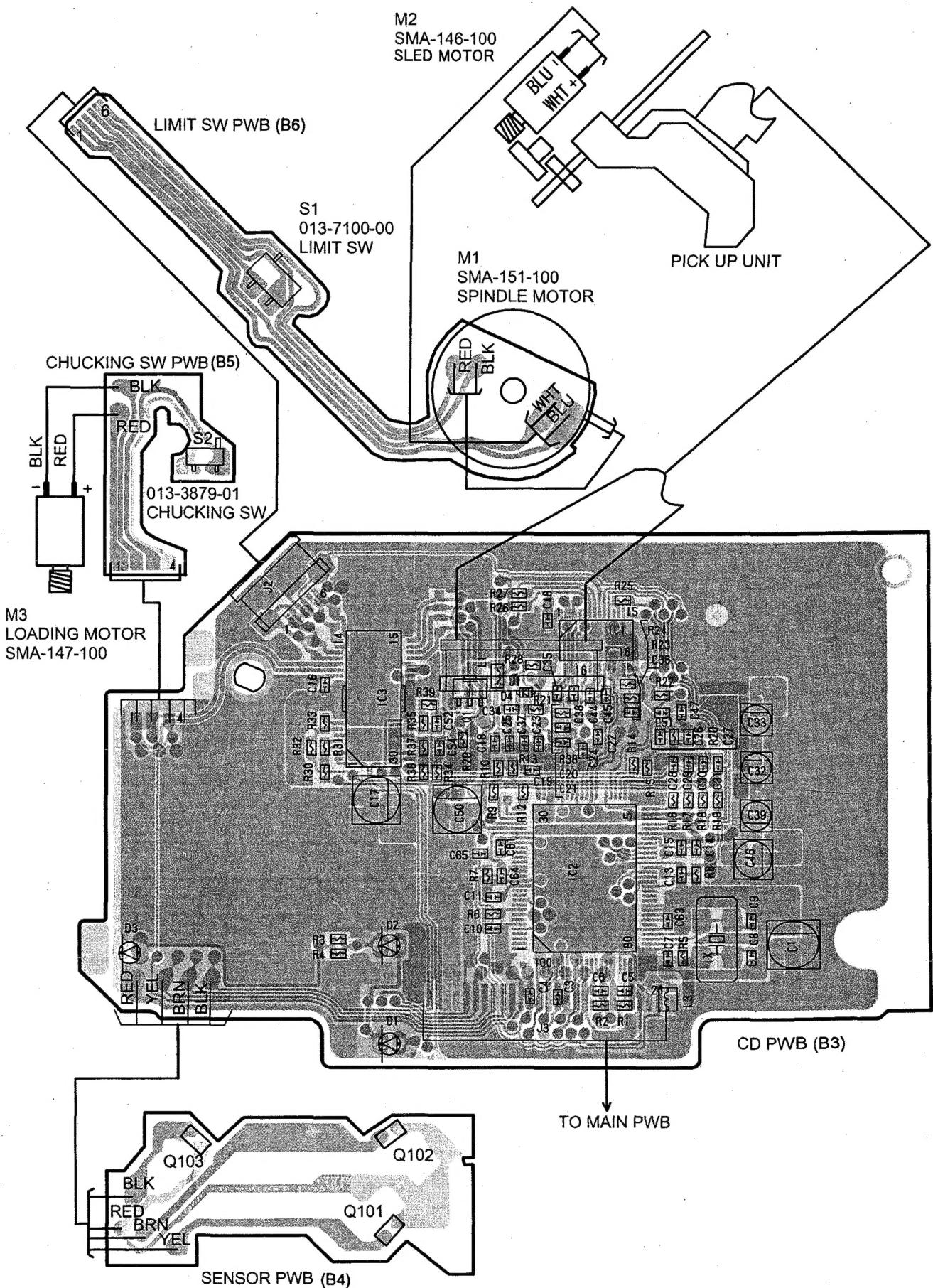
REF No.	PART No.	DESCRIPTION
S2	013-3879-01	SPPB12

### Limit SW PWB section (B6)

REF No.	PART No.	DESCRIPTION
S1	013-7100-00	SPPB11

#### ■ PRINTED WIRING BOARD:

CD mechanism section 929-0092-80(BB-CD)



#### ■ CIRCUIT DIAGRAM:

CD mechanism section 929-0092-80(BB-CD)

